

Notice of Allowability

Application No.

10/550,640

Applicant(s)

CVETOVICH ET AL.

Examiner

Jason M. Nolan, Ph.D.

Art Unit

1626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 09/23/2005.
2. ☒ The allowed claim(s) is/are 1-30 and 32-39 (now 1-38).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 12/08/2005
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Claims 1-30 & 32-39 are pending in the instant application and **Claim 31** is canceled.

Information Disclosure Statement

Applicants' information disclosure statement (IDS), filed on 12/08/2005 has been considered. Please refer to Applicants' copy of the 1449 submitted herein.

Priority

This application is a 371 of PCT/US04/11253, filed on 04/09/2004.

Acknowledgement is made of Applicants' claim for benefit of US Provisional Patent Application 60/462,795, filed on 04/14/2003. Said claim has been made in the ADS and/or in the first paragraph of the Specification.

Statement of Reasons for Allowance

The present invention pertains to a process for synthesizing pyrrolidine carboxylic acids according to the formula (I) and particular species thereof. The two species of **Claims 32 & 33** are free of the prior art; nothing known in the art anticipates or renders the compounds of the instant application obvious. The closest prior art related to the formula I is compound RN 455957-94-5, taught by Ujjainwalla *et al.* (WO 2002/068388 A2 09/06/2002; see IDS). Compound RN 455957-94-5 contains a di-fluorophenyl group, whereas the compounds of the instant application contain either a phenyl or 4-methoxyphenyl group: a patentably distinct contrast.

The process outlined in **Claim 1** is also free of the prior art. The synthetic sequence employs a novel 5-exo-tet cyclization reaction that concomitantly forms the pyrrolidine ring with clean inversion of the C-4 center to afford 1,3,4-trisubstituted chiral pyrrolidine (X). This reaction is unknown in the prior art for the synthesis of pyrrolidine carboxylic acids, (see Scheme 1 of Chung *et al. J. Org. Chem.* **2005**, 70, 3592-3601 for a review on the closest prior art synthetic approaches).

One skilled in the art would be enabled to make and use the process and compounds taught herein using the teachings of the Specification in conjunction with the teachings in the prior art without undue experimentation.


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Telephone Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jason M. Nolan, Ph.D.** whose telephone number is **(571) 272-4356** and electronic mail is **Jason.Nolan@uspto.gov**. The examiner can normally be reached on Mon - Fri (9:00 - 5:30PM). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Joseph M^cKane** can be reached on **(571) 272-0699**. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jason M. Nolan, Ph.D.
Examiner
Art Unit 1626



REBECCA ANDERSON
PATENT EXAMINER

for Joseph K. M^cKane
Supervisory Patent Examiner
Art Unit 1626
Date: May 30, 2007